Rose at 3.51 for 5 secs.	Rose at 4.12 for 50 secs.
„ 3.55 „ an instant.	„ 4.23 „ 90 „
„ 3.59 „ „	„ 4.28 „ an instant.
„ 3.59 „ 65 secs.	„ 4.29 „ 15 secs.
„ 3.60 „ 25 „	„ 4.33 „ 70 „
„ 4. 3 „ an instant.	„ 4.35 „ 110 „
„ 4. 4 „ 80 secs.	„ 4.39 „ 70 „

Observation ceased at 4.43 P.M.

No. 3. Aug. ?, 1874.—Observation commenced on one individual of *D. marginalis*, ♀, at 2.31 P.M.

Rose at 2.56 for 35 secs.	Rose at 3.42 for 3 secs.
„ 3. 8 „ 90 „	„ 3.46 „ 65 „

Observation ceased at 4.11.

Obs.	Minutes of observation.	Ascents.	Seconds at surface.
No. 1.	83	6	561
„ 2.	126	14	584
„ 3.	100	4	193
Totals ...	309	24	1338

Summary.—The female of *D. marginalis*, rose, on the average, once in about $12\frac{7}{8}$ minutes for breathing, and remained, on an average, about $55\frac{1}{2}$ seconds at surface for each respiration. The longest interval it was observed to pass without breathing was $32\frac{1}{2}$ minutes. The duration of a respiration was from 3 seconds to 280 seconds. And the time it was exposed bore to the time it was quiescent a ratio of $1 : 13\frac{4}{5}$.

On *Actæomorpha erosa*, a new Genus and Species of Crustacea.

By Edward J. Miers, F.L.S., Assistant in the Zoological Department, British Museum.

[Read December 21, 1876.]

(Plate XIV.)

The remarkable Crustacean here described was brought up by the dredge from a depth of 7 fathoms with a number of other small Crustacea, chiefly *Cancroidea*. On account of its small size and external resemblance to certain species of *Cancridæ*, its true posi-

tion among the *Oxystomata* was unsuspected' until my paper on the Oxystomatous Crustacea had been read before the Society.

ACTÆOMORPHA, gen. nov.

Carapace convex, with the antero-lateral margins arcuate, as in the *Cancroidea*; front broad, and slightly concave in front. External antennæ with the basal joint apparently fused with the inferior wall of the orbit; the flagellum wanting; the orbital cavity large, and filled with the peduncles of the eyes, the cornea being almost completely concealed by the external wall of the orbit. Buccal cavity broader and less decidedly triangulate than is usual in the *Oxystomata*. External maxillipeds with the meros-joint triangular, a little shorter than the ischium-joint; the exognath narrow, and with its outer margin slightly curved. Abdomen of male narrow-ovate, 7-jointed, the two last joints longer than the preceding, the terminal joint triangular, acute.

ACTÆOMORPHA EROSA, sp. nov.

Carapace everywhere granulated, the granules interspersed with small deep pits. There is a large rounded elevation behind each orbit, one on the cardiac region, and one on each branchial region near the lateral margin. Anterior legs obscurely granulated, robust; arm very short; hand-but little longer than the wrist, fingers straight, closely meeting along their inner edges when closed, acute at the tips. Ambulatory legs short, nearly smooth, laterally compressed; tarsi very small, slender, and acute. Length 4 lines; breadth $4\frac{1}{2}$ lines.

Hab. Australia, Port Curtis (F. M. Rayner, Esq.).

This species, of which I have seen but a single example, is distinguished from all the *Leucosiidæ* with which I am acquainted by its form and the structure of the external antennæ and of the orbital region. In general appearance *A. erosa* bears a greater resemblance to such a species as *Actæa granulata* among the *Cancridæ* than to the *Oxystomata* (hence its name); and this resemblance is borne out by the form of the large orbits, and short robust, anterior legs. That it really belongs to the *Oxystomata* is evident from the form of the buccal cavity and of the meros-joint of the outer foot-jaws. The eyes, of which the cornea is rudimentary (and nearly concealed, in the specimen I have examined, by the outer wall of the orbit), are perhaps useless as organs of vision. Notwithstanding its small size, this example shows no signs of immaturity.

It is perhaps most nearly allied to the genera *Oreophorus** and

* *Oreophorus*, Rüppell, Beschreib. 24 Krabben Rothen Meeres, p. 19 (1830); Bell, Trans. Linn. Soc. xxi. p. 306 (1855).

*Spelæophorus**, which it resembles in the arcuate antero-lateral margins of the carapace and well-defined orbits; but it differs in the postero-lateral margins of the carapace not being produced over the bases of the ambulatory legs, in the form of the eye-peduncles and anterior legs, &c.

EXPLANATION OF PLATE XIV.

Fig. 1. *Actæomorpha erosa* ♂, nat. size (outline).
2. A dorsal view of the same animal, enlarged about four times.
3. An inferior view, also × 4 diam., and with limbs extended.
4. The inferior aspect of fore parts, greatly enlarged, showing eyes (*a*), inner antennæ (*b*), and outer antennæ (*c*).
5. The orbit viewed from above, showing the position of the eye-peduncle (*a*), enlarged.
6. The hand, exterior view, enlarged.

Morphology of the Mammalian *Ossicula auditûs*. By Alban H. G. Doran, F.R.C.S. (Communicated by Professor Flower, F.R.S., F.L.S.)

[Read December 21, 1876.]

(Abstract.)

The complete memoir on the small ear-bones of the Mammals will hereafter be published in the Society's 'Transactions,' with copious illustrations, whereby an excellent comparison of the various forms peculiar to and significant of groups may be instituted. Previously elsewhere† I have given a short *résumé* respecting the material which has afforded the means of study of the series, with a brief reference to what has already been published on the internal auditory apparatus, and added a short notice concerning points among certain of the higher groups of the Mammalia. For the present abstract I shall therefore confine my remarks to the auditory ossicles of the following orders, viz.:—the Insectivora, the Chiroptera, the Cetacea, the Sirenia, the Edentata, the Marsupialia, and the Monotremata.

* *Spelæophorus*, Alph. M.-Edw. Ann. Soc. Ent. France (sér. 4), v. p. 148 (1865).

† Proc. Roy. Soc. vol. xxv. pp. 101–109 (1876).

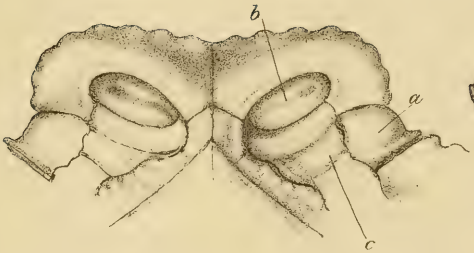

Fig 4

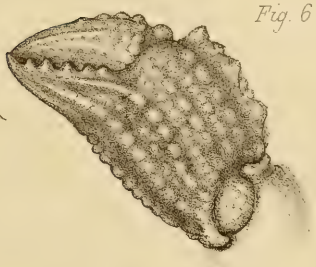

Fig. 6

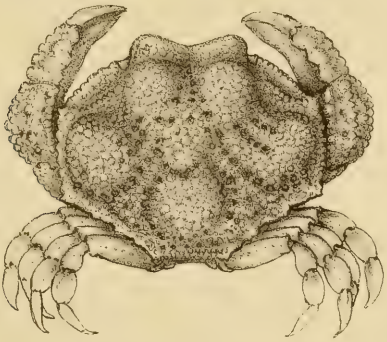

Fig 2

Fig. 1.

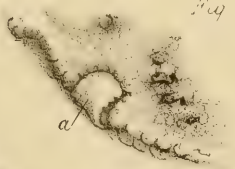

Fig 5

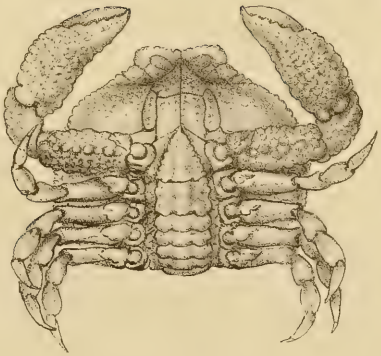

Fig 3

Bergeau lith.

Hanhart imp

ACTÆOMORPHA EROSA.